

~~FNS A7~~ CLAIMS:

1. A network element of an analog, cellular network, notably a mobile radio set or a base station, including receiving means for receiving a wide-band data sequence that is composed of a starting synchronization (DOT1), a word synchronization (WS), a data word (REP1) and a fixed number of repeats of a further synchronization (DOT), a word synchronization (WS) and the data word (REP2-REP11), as well as evaluation means for recognizing that a transmission of a data sequence takes place when a starting synchronization (DOT1) has been recognized or alternatively one of the further synchronizations (DOT), succeeded by a correct word synchronization (WS), has been recognized, and for evaluating data words (REP1-REP11) received each time subsequent to a recognized starting synchronization (DOT1) that is succeeded by a word synchronization (WS), or received subsequent to a recognized further synchronization (DOT) that is succeeded by a correct word synchronization (WS).

2. A network element as claimed in claim 1,
15 characterized in that
the evaluation means are arranged to use a received data sequence as a basis for the selection of a data word when the data sequence yields at least a predetermined number of correctly received repeats of the data word (REP1-REP11).

3. A network element as claimed in one of the preceding claims,
20 characterized in that
the evaluation means are arranged to select for further processing that repeat from the received repeats of a data word (REP1-REP11) in a data sequence that occurs most frequently.

4. A network element as claimed in one of the preceding claims,
25 characterized in that
the evaluation means include a memory for storing a correct starting synchronization (DOT1) and a data buffer which has a capacity at least equal to the starting synchronization for the

bit-wise storage and shifting through of the received data, as well as comparison means for the continuous bit-wise comparison of the stored memory contents with the data buffer contents and for determining the number ($dd(rx)$) of deviating bits, the evaluation means being arranged to decide that a starting synchronization (DOT1) has commenced when the number ($dd(rx)$) of deviating bits is less than a predetermined number (dd_{min}), and that a starting synchronization (DOT1) has been correctly received when the number ($dd(rx)$) of deviating bits reaches zero.

5. A network element as claimed in one of the preceding claims,
10 characterized in that
the evaluation means are arranged to assume the occurrence of a change over to the second
data sequence in the case of disturbed starting synchronizations (DOT1) of two directly
successive data sequences after expiration of the temporal length of a data sequence as from
the beginning of a first recognized synchronization (DOT) that is succeeded by a correct
15 word synchronization (WS).

6. A method for a network element of an analog, cellular network, notably a
mobile radio set or a base station, for receiving a data sequence, that is composed of a
starting synchronization (DOT1), a word synchronization (WS), a data word (REP1) and a
20 fixed number of repeats of a further synchronization (DOT), a word synchronization (WS)
and the data word (REP2-REP11), which method includes the following steps:
a) continuously monitoring the arrival of wide-band data streams, if any, in order
to recognize whether a data transmission intended for the network element takes place,
b) determining whether a starting synchronization (DOT1) can be recognized in
25 received data streams or whether a further synchronization (DOT) that is succeeded by a
correct word synchronization (WS) can be recognized, and
c) evaluating the data words (REP1-REP11) subsequent to a recognized starting
synchronization (DOT1) or subsequent to a combination of a further recognized
synchronization (DOT) and a correctly received word synchronization (WS).